

CLAIMS

What is claimed is:

1. A method comprising:

detecting a plurality of audio sources within communication range of a wireless device;

establishing an audio link with a pre-determined number of audio source devices of the detected audio sources; and

providing, via one or more selected device audio channels, audio streams to a user of the wireless device, wherein the audio streams are from one or more of the predetermined number of audio source devices with an established audio link to the wireless device.

2. The method of claim 1, wherein detecting the audio sources further comprises:

polling a surrounding area of the wireless device for audio sources within a pre-determined distance of the wireless device;

when an audio source is detected, initiating an authentication handshake with an audio source device of the detected audio source;

once the detected audio source device is authenticated, initiating creation of an audio link with the authenticated audio source device; and

repeating the polling, initiating and initiating until an audio link is established with the pre-determined number of the detected audio source devices.

3. The method of claim 2, wherein initiating the authentication handshake further comprises:

determining a device ID of the detected audio source device;

determining, according to the device ID, whether the detected audio source device is a trusted device;

when the audio source device is a trusted device, authenticating the device to enable creation of an audio link between the detected audio source device and the wireless device; and

otherwise, disregarding the detected audio source device.

4. The method of claim 1, further comprising:
monitoring the user for a request for an additional device audio channel from a requested audio source device;
when the user requests an additional device audio channel, polling the areas surrounding the wireless device for a requested audio source device;
once the requested device is detected, requesting a combined audio link for a selected audio source device; and
once the combined audio link is established, generating the additional audio channel.

5. The method of claim 1, wherein establishing an audio link further comprises:
selecting an authenticated audio source device;
generating a communication connection with the authenticated audio source device to form an audio link between the headset device and the selected audio source device; and
repeating the selecting and generating until the pre-determined number of audio links are established.

6. The method of claim 1, further comprising:
polling the areas surrounding the headset device for additional audio source devices within the pre-determined distance of the headset device;
when an audio source is detected, requesting a combined audio link from a host device, the combined audio link including an audio link with the host device and an audio link with the detected audio source;
once the combined audio link is established, generating a device audio channel for each audio source within the combined audio link; and
repeating the polling, requesting and generating until a pre-determined number of audio channels are generated.

7. The method of claim 1, wherein providing the audio sources to the user further comprises:
generating a device audio channel for each established audio link with a detected audio source device;
receiving, from the user, a selection for one or more of the generated device audio channels; and
providing, via the one or more selected device audio channels, selected audio streams to the user via the wireless device.

8. The method of claim 7, further comprising:
monitoring the user for a request to switch one or more of the audio channels;
when a user request is detected, determining one or more audio channels selected by the user; and
providing, via the one or more selected audio channels, selected audio streams to the user via the wireless device.

9. The method of claim 1, wherein providing audio streams further comprises:
detecting data-voice packets via the combined audio link;
when a data voice packet is detected, extracting voice streams provided by the requested audio source device from a data portion of the detected data voice packet; and
providing the extracted voice streams to the user via the additional audio channel.

10. The method of claim 9, further comprising:
extracting voice-data streams generated by the selected audio source device from a voice portion of the data-voice packet; and
providing the extracted voice-data streams to the user via an audio channel of the selected audio source device.

11. A computer readable storage medium including program instructions that direct a computer to function in a specified manner when executed by a processor, the program instructions comprising:
detecting a plurality of audio sources within communication range of a wireless device;
establishing an audio link with a pre-determined number of audio source devices of the detected audio sources; and
providing, via one or more device audio channels, audio streams to a user of the wireless device wherein the audio streams are from one or more selected audio source devices with an established audio link to the wireless device.

12. The computer readable storage medium of claim 11, wherein detecting the audio sources further comprises:

polling a surrounding area of the wireless device for audio sources within a pre-determined distance of the wireless device;

when an audio source is detected, initiating an authentication handshake with an audio source device of the detected audio source;

once the detected audio source device is authenticated, initiating creation of an audio link with the authenticated audio source device; and

repeating the polling, initiating and initiating until an audio link is established with the predetermined number of the detected audio source devices.

13. The computer readable storage medium of claim 12, wherein initiating the authentication handshake further comprises:

determining a device ID of the detected audio source device;

determining, according to the device ID, whether the detected audio source device is a trusted device;

when the audio source device is a trusted device, authenticating the device to enable creation of an audio link between the detected audio source device and the wireless device; and

otherwise, disregarding the detected audio source device.

14. The computer readable storage medium of claim 11, further comprising: monitoring the user for a request for an additional device audio channel from a requested audio source device;

when the user requests an additional device audio channel, polling the areas surrounding the wireless device for a requested audio source device;

once the requested device is detected, requesting a combined audio link for a selected audio source device; and

once the combined audio link is established, generating the additional device audio channel.

15. The computer readable storage medium of claim 11, wherein establishing an audio link further comprises:

selecting an authenticated audio source device;

generating a communication connection with the authenticated audio source device to form an audio link between the headset device and the selected audio source device; and

repeating the selecting and generating until the pre-determined number of audio links are established.

16. The computer readable storage medium of claim 15, further comprising:
polling the areas surrounding the headset device for additional audio source devices within the pre-determined distance of the headset device;
when an audio source is detected, requesting a combined audio link from a host device, the combined audio including an audio link with the host device and an audio link with the detected audio source device;
once the combined audio source link is established by the host source device, generating a device audio channel for each audio source within the combined audio link;
and
repeating the polling, requesting and generating until a pre-determined number of audio channels are generated.

17. The computer readable storage medium of claim 11, wherein providing the audio sources to the user further comprises:
generating a device audio channel for each established audio link with a detected audio source device;
receiving, from the user, a selection for one or more of the generated device audio channels; and
providing, via the one or more selected device audio channels, selected audio streams to the user via the wireless device.

18. The computer readable storage medium of claim 17, wherein providing audio streams further comprises:
monitoring the user for a request to switch one or more of the audio channels;
when a user request is detected, determining one or more audio channels selected by the user; and
providing, via the one or more selected audio channels, selected audio streams to the user via the wireless device.

19. The computer readable storage medium of claim 11, further comprising:
detecting data-voice packets via the combined audio link;
when a data voice packet is detected, extracting voice streams provided by the requested audio source device from a data portion of the detected data voice packet; and
providing the extracted voice streams to the user via the additional audio channel.

20. The computer readable storage medium of claim 9, further comprising:
extracting voice-data streams generated by the selected audio source device from a voice portion of the data-voice packet; and

providing the extracted voice-data streams to the user via an audio channel of the selected audio source device.

21. A method comprising:
receiving, by an audio source device, a request from a wireless device for a combined audio link;
generating an audio link with a requested audio source device;
combining the generated audio link with an audio link between the audio source device and the wireless device, thereby forming the combined audio link; and
providing, via the combined audio link, combined audio streams from the audio source device and the requested audio source device, to the wireless device.

22. The method of claim 21, wherein generating the audio link further comprises:
polling the areas surrounding the audio source device for the requested audio source device; and
once the requested audio source is detected, initiating an audio link between the audio source device and the requested audio source device.

23. The method of claim 21, wherein generating an audio link file further comprises:
initiating an authentication handshake with the requested audio source device; and
once the requested audio source device is authenticated, initiating creation of an audio link with the requested audio source device.

24. The method of claim 21, wherein providing combined audio streams further comprises:
generating data voice packets containing voice/data streams from the audio source device;
embedding voice data streams from the requested audio source device into the data voice packets; and
providing, via the combined audio link, the data voice packets containing combined audio from the audio source device and the requested audio source device to the wireless device.

25. The method of claim 24, wherein embedding voice/data streams further comprises:

- detecting packets transmitted by the requested audio source device;
- extracting voice/data streams from the detected packets; and
- embedding the extracted voice/data streams within a data portion of the generated data voice packets.

26. A computer readable storage medium including program instructions that direct a computer to function in a specified manner when executed by a processor, the program instructions comprising:

- receiving, by an audio source device, a request from a wireless device for a combined audio link;
- generating an audio link with a requested audio source device;
- combining the generated audio link with an audio link between the audio source device and the wireless device, thereby forming the combined audio link; and
- providing, via the combined audio link, combined audio streams from the audio source device and the requested audio source device, to the wireless device.

27. The computer readable storage medium of claim 26, wherein generating the audio link further comprises:

- polling the areas surrounding the audio source device for the requested audio source device; and
- once the requested audio source is detected, initiating an audio link between the audio source device and the requested audio source device.

28. The computer readable storage medium of claim 26, wherein generating an audio link file further comprises:

- initiating an authentication handshake with the requested audio source device; and
- once the requested audio source device is authenticated, initiating creation of an audio link with the requested audio source device.

29. The computer readable storage medium of claim 26, wherein providing combined audio further comprises:

- generating data voice packets containing voice/data streams from the audio source device;
- embedding voice data streams from the requested audio source device wherein the data voice packets; and
- providing, via the combined audio link, the data voice packets containing combined audio from the audio source device and the requested audio source device to the wireless device.

30. The computer readable storage medium of claim 29, wherein embedding voice/data streams further comprises:

- generating data voice packets containing voice/data streams from the audio source device of the data voice packets;
- embedding voice data streams from the requested audio source device into the data voice packets; and
- providing, via the combined audio link, the data voice packets containing combined audio from the audio source device and the requested audio source device to the wireless device.

31. An apparatus, comprising:

- a processor to establish an audio link with a pre-determined number of audio sources within communication range of the apparatus;
- a communications interface coupled to the processor, the communications interface to generate an audio channel for each of the pre-determined detected audio source device, and to provider the user of the apparatus with access to each audio channel device; and
- a channel selection unit to receive a selection from the user for one or more of the generated audio channels, and provide the selected channels to the user via the communications interface.

32. The apparatus of claim 31,

- wherein the channel selection device enables the user to request additional device audio channels, such that the processor requests a combined audio link for a selected audio source device; and
- wherein the communications interface generates an additional device audio channel once the combined audio link is generated.

33. The apparatus of claim 32, wherein the communication interface extracts voice/data stream from a data portion of data/voice packets detected from the combined audio link and provides the extracted voice/data stream to the user via the additional device audio channel.

34. The apparatus of claim 31, wherein the channel selection device is one of a voice activated channel selection device and a mechanically activated channel selection device.

35. A system comprises:
one or more audio source devices; and
a host device including an audio link combination unit to combine a generated audio link to a requested audio source device with an audio link between the host device and a wireless device, thereby forming a combined audio link; and
provide, via the combined audio link, combined audio streams from the audio source device and the requested audio source device, to the wireless device.

36. The system of claim 35, wherein the wireless device further comprises:
a processor to establish an audio link with a pre-determined number of audio sources device within communication range of the wireless device;
a communications interface coupled to the processor, the communications interface to generate an audio channel for each of a predetermined number of detected audio source devices, and to provide a user of the wireless device with access to each device audio channel; and
a channel selection unit to receive a selection from the user for one or more of the generated device audio channels, and provide the selected device audio channels to the user via the communications interface.

37. The system of claim 36:
wherein the channel selection device enables the user to request additional audio channels, such that the processor requests a combined audio link for the host device; and
wherein the communications interface generates an additional device audio channel once the combined audio link is generated.

38. The apparatus of claim 36, wherein the communication interface extracts voice/data stream from a data portion of data/voice packets detected from the combined audio link and provides the extracted voice/data streams to the user via the additional device audio channel.

39. The apparatus of claim 36, wherein the channel selection device is one of a voice activated channel selection device and mechanically activated channel selection device.

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